

MARKOVICH, B.N., kand. tekhn. nauk; IZOTOV, Ye.N., inzh.

Dynamics of a hydropneumatic safety device. [Nauch.trudy;  
ENIKMASHa 8:3-17 '64. (MIRA 18:3)

MARKOVICH, B.N., kand. tekhn. nauk; IZYUMTSEV, A.N., inzh.; KOVALEV, V.V.,  
inzh.

Manufacturing panels on punching presses. [Nauch. trudy]  
ENIKMA Sha 11:14-49 '65. (MIRA 18:6)

RUSSKOV, N.V.; ~~MARKOVICH~~, B.Ye.

Case of complete transposition of the position of the internal  
organs with tetralogy of Fallot. Zdravookhranenie 3 no.6:57-58  
N-D '60. (MIRA 13:12)

1. Iz kliniki gosspital'noy terapii (zav. -prof. M.A.Polyukhov)  
Kishinyovskogo meditsinskogo instituta.  
(TETRALOGY OF FALLOT)  
(VISCERA ~~ABNORMALITIES~~ AND DEFORMITIES)

YARE NIF ...

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YABLONIK, R.M., kand. tekhn. nauk, dotsent; MARKOVICH, E.E., inzh.

Study of mechanical losses due to humidity in turbine stages.  
Izv. vyzn. uchab. zav.; energ. 6 no.9:51-58 S '63. (MIRA 16:12)

1. Bryanskiy institut transportnogo mashinostroyeniya.  
Predstavlena kafedroy turbostroyeniya.

MARKOVICH, E.E., inzh.

Effect of the banding on the mechanical losses due to moisture  
in a turbine stage. Izv. vys. ucheb. zav.; energ. 7 no.7:  
103-104 J1 '64 (MIRA 17:P)

1. Bryanskiy institut transportnogo mashinostroyeniya. Pred-  
stavlena kafedroy turbinostroyeniya.

YABLONIK, R.M., kand. tekhn. nauk, dotsent; MARKOVICH, E.E., inzh.

Effect of steam bleed through the moisture trap on the  
moisture removal in the blading and efficiency of a turbine.  
Energomashinostroenie 10 no.2:23-25 F '64. (MIRA 17:6)

ACC NR: AP6021533

SOURCE CODE: UR/0143/66/000/006/0072/0075

AUTHOR: Yablonik, R. M. (Doctor of technical sciences); Markovich, E. E. (Candidate of technical sciences)

ORG: Bransk Institute of Transport Machine Construction (Branskiy institut transportnogo mashinostroyeniya)

47  
B

TITLE: The structure for the formula for the average drop size in the jet from a pneumatic nozzle

SOURCE: IVUZ. Energetika, no. 6, 1966, 72-75

TOPIC TAGS: jet flow, nozzle design

ABSTRACT: The following formula is generally used for the critical drop diameter d:

$$d = \frac{2\sigma}{\rho v^2} We_{cr} \quad (1)$$

where  $\sigma$  is the coefficient of surface tension;  $\rho$  is the density of the gas;  $We_{cr}$  is the critical Weber number. However, experimental results on the atomization of a liquid with pneumatic nozzles do not coincide with this relationship. The article recapitulates formulas proposed by several different authors in previously published papers, in particular

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UDC: 621.43.037



L 45131-66

ACC NR: AP6021533

the formula of Levich:

$$d = \chi \left[ \frac{1}{c} \sqrt{\frac{\sigma}{\gamma_L}} \right]^{1.2} L^{0.4} \left( \frac{\gamma_L}{\gamma} \right)^{0.2}, \quad (2)$$

where  $c$  is the absolute velocity of the gas stream being atomized;  $\gamma_L$  is the density of the liquid drops;  $L$  is the maximum possible scale;  $\chi$  is a dimensionless experimental coefficient. The agreement of Equation (2) with experimental data supports the assumption that the theoretical bases used in its derivation correctly reflect the main factors which affect atomization of a liquid by a pneumatic nozzle; the atomization is basically determined by inertial effects. Orig. art. has: 7 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: 12Jul65/ ORIG REF: 003/ OTH REF: 004

Card 2/2 ULR

MARKOVICH, Emanuel Solomonovich; GUTER, R.S., red.; KISUNKO,  
V.G., red.; TITOVA, V.A., red.; SHVETSOV, S.V.,  
tekhn. red.

[Course in higher mathematics] Kurs vysshei matematiki.  
Moskva, Rozvuzizdat, 1963. 407 p. (MIKA 16:12)  
(Mathematics)

MARKOVICH, N. [Markovici, N.]; MARKOVICH, G. [Markovici, G.] (Bukharest)

Morphological basis of epilepsy. Arkh. pat. 26 no.3:63-68 '64.  
(MIRA 18:12)

1. Institut nevrologii (direktor - akademik A. Kreyndler)  
imeni I.P. Pavlova akademii Rumynskoy Narodnoy Respubliki.

MARKOVICH, G. H.

USSR/General Problems. Methodology. History. Scientific A  
Institutions and Conferences. Teaching. Problems  
of Bibliography and Scientific Documentation

Abs Jour : Ref Zhur-Khimiya, No 4, 1958, 10234

Author : G. A. Markovich

Inst : Not given

Title : Development of the Synthetic Rubber, Tire, and  
Resin Industries in 40 Years

Orig Pub : Kauchuk i rezina, 1957, No 10, 4-13

Abstract : No abstract

Card 1/1

177 PARK VIEW B A

AUTHOR: Markovich, G. A.

138-1-1/16

TITLE: New Successes in the Rubber Goods Industry. (K novym uspekham promyshlennosti rezinovykh tekhnicheskikh izdeliy).

PERIODICAL: Kauchuk i Rezina, 1958, Nr.1. pp. 1 - 2 (USSR).

ABSTRACT: A meeting of the workers in the rubber goods industry, the Research Institute of Rezinoprojekt (Rezinoproekt sovmarkhozov), and the Ministry for the Chemical Industry (Ministerstvo khimicheskoy promyshlennosti) was held in Moscow between 8th - 11th January, 1958. Plans for the development of the industry during 1958-1965, results of research work carried out during 1957 and questions of co-ordination and co-operation of Research Institutes and Engineering and Technical Plants were discussed. Papers were read by E. M. Rabkin, Chief Engineer of the Industry for Rubber Goods, MKHP and S. V. Burov and V. I. Novikov, Supervisors of NIIRP and NIIR. A. S. Novikov discussed new types of raw materials and polymers, S. E. Strusevich new textile materials of synthetic and artificial fibres, and A. S. Kuz'minskiy - radiation vulcanisation. The mechanisation and automation of the industry, new uses of synthetic materials etc.

Card 1/2

New Successes in the Rubber Goods Industry.

138-1-1/16

were discussed. In a number of factories vulcanisation presses were automised. The Research Institutes investigated continuous vulcanisation of rubberised fabrics by infra-red rays; the continuous production of rubber cords and tubes; a new machine for making moulded products; new active fillers (Ca silicates, calcium fluoride, precipitated activated chalk etc.). The quality of rubber goods (heat stability, frost resistance, resistance to wear and to deformation etc.) should be improved. It was recommended to start production of the following: accelerators and ultra-accelerators (dithiocarbamates), thiurams, xanthogenates, plasticizers, e.g. Renatsit 4 and 5, peptone 22, plasticizers for low-molecular polymers of the Hycar type (хаўкар V-10), coumarone-indene resins, anti-ageing agents, stable pigments and organic and inorganic dyes etc.

AVAILABLE: Library of Congress.

Card 2/2

45 9210 also 2109, 2209

S/138/59/000/001/00101  
A051/A029

AUTHORS: Yashunskaya, F. I., Markovich, G. A.

TITLE: On the Problems of High-Elastic Synthetic Rubbers as Compared  
to Butadiene-Styrene Rubbers ✓

PERIODICAL: Kauchuk i Rezina, 1959, No. 11, pp. 1-7.

TEXT: In the USSR particular emphasis is laid on an increase in the production of butadiene-styrene and butadiene-methyl-styrene copolymer rubbers because of their wear-resistance, high elasticity, durability, tensile strength, etc. It is the intention of the Soviet Synthetic Rubber Industry to produce butadiene-styrene rubber with higher physico-mechanical properties, of lesser cost and easier to process. It was found, for example, that the introduction of small additions of carboxyl-containing monomers, such as methacrylic acid, into the polymerizing mixture, imparts new properties to the ternary copolymers: elevated thermal aging resistance, resistance to the formation of cracks, elevated wear-resistance and an elevated stability of adhesion between the rubber and the textiles. The carboxyl-containing rubbers yield strong vulcanizates not requiring fillers which

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S/138/59/000/000/

A051/A029

On the Problems of High-Elastic Synthetic Rubbers as Compared to Butadiene Styrene Rubbers

is an important factor in the manufacture of white and colored rubbers (Ref. 1, 2). The disadvantage of the carboxyl-containing rubbers is the tendency of the rubber mixtures to scorching during the processing. An other monomer as third component in the ternary copolymers recommended is methylvinylpyridine, which can increase the wear-resistance and the aging resistance in the rubber. However, these copolymers have not as yet been fully investigated. It is stated that many articles are still being made of natural rubber. Therefore, stress is laid on producing a synthetic rubber with equal elastic properties to natural rubber and having a number of advantages over it. The stereospecific polymerization is used for this purpose, with lithium and Ziegler-type catalysts. Special need for improved types of butadiene-styrene rubbers is felt in the production of tires for trucks, buses and aircraft, which represents 80% of the total number of tires manufactured in the USSR. The (K<sub>1</sub>(SK<sub>1</sub>))<sup>1</sup> type high-elastic stereoregular rubber is the only one of its kind tested and suitable for manufacturing heavy-vehicle tires in the USSR. The import of natural rubber can be reduced by expanding the production of the new high-elastic rubbers.

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S/138/59/000/011/001/011  
A051/A029

On the Problems of High-Elastic Synthetic Rubbers as Compared to Butadiene-Styrene Rubbers

by erecting new SKI plants, and by developing the production of isoprene rubber, both on the basis of lithium and complex cocatalysts of the Ziegler and other types. Research into developing and producing new types of high-elastic rubbers of the cis-1,4-butadiene type is recommended, in addition to ethylene copolymers with propylene, etc. which would surpass natural rubber in their technical properties. A table is given (Table 1) of the comparative properties of the SKI, natural and ~~CKC-30A~~ (SKS-30A) rubbers. It is seen that SKI rubber is the most promising of the synthetic rubbers. There are 3 tables and 14 references: 7 Soviet, 7 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti  
(Scientific Research Institute of the Tire Industry)

Card 3/3

MARKOVICH, G.A.

All-Union Conference of Workers of the Chemical Industry. Kauch.i  
rez. 21 no.4:52 Ap '62. (MIRA 15:4)  
(Chemical industries—Congresses)

BEYSOVA, M.P.; KRYUKOV, P.A.; MARKOVICH, G.M.

Measuring the electric conductivity of H-cationized water in order to determine its mineralization. *Gidrokhim.mat.* 28:199-208 '59. (MIRA 12:9)

1. *Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.*  
(Electric conductivity) (Water--Analysis)

L 46771-66 EWT(d)/EWT(m)/EWP(k)/EWP(w) IJP(c) EM

ACC NR: AR6014201 (N)

SOURCE CODE: UR/0271/65/000/011/B038/B038

AUTHOR: Maksimadzhi, A. I.; Markozov, G. V.; Semikolenov, V. N.; Chetyrkin, N. V.

TITLE: Calculation of amplitude-frequency characteristics (AFCh) of cargo ships on a "Minsk" digital computer

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 11B302

REF SOURCE: Tr. Tsentr. n.-i. in-ta morsk. flota, vyp. 59, 1964, 3-13

TOPIC TAGS: cargo ship, computer application

ABSTRACT: The random nature of external loads and stresses in the ship-hull joints determines the random nature of stress safety factors. In order to use probabilistic criteria for practical purposes, their connection with the ship-strength characteristics should be established. In determining the fundamental parameters of distribution of external loads over the ship hull, it is assumed that, for a finite time, the processes in question are stationary and ergodic, and the single-dimensional laws of distribution of their ordinates are in satisfactory agreement with the normal law. The variation of the wave-profile ordinate constitutes the input in the problem; the heaving and pitching, bending moments, shearing force, and vertical pressure on the hull shell make up the output. The AFCh required in the calculations determines the properties of the ship as a dynamic system that

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UDC: 681.142.343:629.12

L 46771-66

ACC NR: AR6014201

converts the random process of sea waves into the above ondular process. In linear terms, the problem of AFCh determination for pitching and external-load variation can be reduced to a repeated solution of a system of two linear differential equations with constant coefficients for various wave frequencies. Even "standard" ships require 15000 variants of time-consuming calculations; hence, a program for a "Minsk" digital computer has been prepared. The ship is regarded as a stable dynamic system. The wave-profile-variation equation is writted, and the AFCh equations are developed for heaving and pitching, for linear and angular speeds and accelerations, and also the AFCh for the total vertical load, shearing forces, and bending moments. The setting up of a machine program algorithm is detailed. Solution of the above problem permits a statistical evaluation of the cargo-ship-hull strength in a rough sea and permits obtaining data for ship design. Bibliography of 2 titles. A. K. [Translation of abstract]

SUB CODE: 09

hs

Cord 2/2

OSADCHIY, L.K.; SYRKIN, Yu.G., inzh.tekhnolog; VEKSHIN, K.D., mashinist  
elektrovoza, Geroy Sotsialisticheskogo Truda; ONOPRIYENKO, L.N.,  
mashinist elektrovoza; SHAROV, M.S.; MARKOVICH, I.A., mashinist-  
instruktor

"Electric networks of the VL23 electric locomotive." Elek. i  
tepl. tiaga 5 no.6:44-45 Je '61. (MIRA 14:10)

1. Depo Dnepropetrovsk (for Syrkina). 2. Depo Barabinsk  
Zapadno-Sibirskoy dorogi (for Sharov).  
(Electric locomotives)

ZHEGALOV, I.S.; LEVKIN, A.D.; MARKOVICH, I.M.; BAYKOVA, N.Ya.; SHEV-  
CHENKO, S.I.; ZHUK, Ya.M., kand. tekhn. nauk, red.; KRYUKOV, V.L.,  
red.; ANTONOVA, N.M., tekhn. red.

[Harvesting grain in two and three stages] Dvukh- i trekhfaznaia  
uborka zernovykh kul'tur. Moskva, Sel'khozgiz, 1961. 92 p.

(MIRA 14:9)

1. Sotrudniki laboratorii mekhanizatsii uborki, oshistki, sushki  
i khraneniya zerna Vsesoyuznogo nauchno-issledovatel'skogo instituta  
mekhanizatsii sel'skogo khozyaystva (for all except Zhuk, Kryukov,  
Antonova).

(Grain--Harvesting)

Brak, I. S., MARKOVICH, I. M.

Cor. Mbr., Acad Sci USSR (-1943-)

"On the Question of the Criterion, and the Calculation of Inertia in Estimates of Static Stability," Iz. AN Nauk SSSR, Otdel, Tekh, Nauk, No. 5-6, 1943.

BR-52059019



MARKOVICH, I. M.

At the plenary meeting of the conference of the Power Establishments of the Academies of Sciences of the Union Republics and of the Affiliates of the Academy of Science, USSR, the following paper was presented by Doctor of Technical Sciences I. M. Markovich  
~~on~~ "The problems of automatic regulation of frequency and power in power systems".

SO: Elektrichestvo, No. 9 Moscow, Sept. 1947 (U-5534)

2346. Experimental determination of the precision of electrical systems, which influence the process of automatic control of frequency and power. **MAKROVICH, I. M. AND BIVALEV, B. A. 2346/2347** (No. 8) 21 7 (Aug., 1948) in *Radio*. Tests were made during the period May-Aug., 1947, on certain large power systems to determine the fluctuation of the total load over short time intervals and the rate of its variation, and to correlate it with the corresponding changes in frequency. Frequency variations due to sudden disturbances arising from generator faults have also been analyzed. The results of the tests are of interest in finding a reasonable demand upon the closeness of automatic frequency regulation that may be desirable, about which little accurate information has hitherto been available. A repetition of the tests under winter conditions is considered to be very desirable. **B. A.**

*Energetics Inst. in Kozhlyshinovsk*

PA 33/49T29

USSR/Electricity  
Power Plants, Electric  
Frequency Control

Feb 49

"Contemporary Methods of Regulation of Frequency and Power Exchange in Power Systems," I. M. Markovich, V. I. Gornushkin, Power Eng Inst Imeni G. M. Krzhizhanovskiy, Acad Sci USSR, 11 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 2

pp 211-21

Discusses systems of frequency regulation and control of power supply to various stations. Decides that most practical system is one where changes in the load of separate stations are

33/49T29

USSR/Electricity (Contd)

Feb 49

assigned by the dispatcher, who is guided by value of total load variation, power reserve in frequency-controlling station (one station is charged with frequency regulation), and considerations of economy. While this system mechanizes the functions of station watch personnel, it is hard on the dispatcher. Submitted by Acad G. M. Krzhizhanovskiy, 8 Jul 48.

MARKOVICH, I. M.

33/49T29

MARKOVICH, I. M.

Sept 49

USSR/Engineering - Power Plants, Electric  
Power, Distribution of

"Automatic Distribution of Operating Loads in an Electric Power System," I. S. Bruk,  
Corr Mem, Acad Sci, I. M. Markovich, Dr. Tech Sci, V. I. Gorushkin, S. A. Sovalov,  
Candidates Tech Sci, 4 pp

"Elektrichestvo" No 9

Description of automatic load distributing device "RAN," developed in 1946-1947 in  
ENIN (Power Eng Inst, Acad Sci USSR) Lab. Device permits optimum distribution of  
operating loads between stations of electric power systems, from standpoint of oper-  
ating economy. Includes three diagrams.

PA 153T45

PA 164T14

MARKOVICH, I. M.

USSR/Electricity - Transmission Lines      Jul 50  
Power Stations

"Experimental Study of Dynamic Stability," I. M. Markovich, Dr Tech Sci, S. A. Sovolov, Cand Tech Sci, Moscow

"Elektrichestvo" No 7, pp 30-36

Made experimental study of dynamic stability of 220-kv power-transmission line from hydroelectric power station. Compares experimental and theoretical results and finds it practicable to make accurate calculations of dynamic stability. Considers this will be most important in

164T14

USSR/Electricity - Transmission Lines      Jul 50  
(Contd)

operation of existing systems and in design of new power-transmission lines from large hydroelectric power stations.

164T14

MARKOVICH, I.M.

PHASE I. Treasure Island Bibliographic Report

BOOK

Call No.: TK1191.M295 G66000036

Author: MARKOVICH, I.M.

Full Title: INTERCONNECTED ELECTRIC POWER SYSTEMS AND THEIR OPERATION

Transliterated Title: Energeticheski sistemy i ikh regim

Publishing Data

Originating Agency: None.

Publishing House: State Power Publishing House.

Date: 1952.

No. pp.: 312.

No. copies: 5,000.

Editorial Staff

Editor: None.

Technical Editor: None.

Editor-in-Chief: None.

Appraiser: None.

Others: The author expresses gratitude to S.A. Sovalov, Candidate of Technical Sciences, and L.A. Smirnov, Engineer, for valuable comments.

Text Data

Coverage: The first part of the book describes power distribution systems and major characteristics of their operation: elements of distribution, dependability of system, switching diagrams, quality of energy, economy of operation, etc. The second part of the book deals with computation of different parameters for operation of various systems (electric networks, generators, dynamic and static stability, current distribution, power balance, etc.).

Purpose: The book is written for engineering personnel of electric power stations, electric networks, regional and main offices of the Ministry of Electric Power Stations, and for students of power engineering in technical institutions of higher learning.

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Card 2/2

Call No.: TK1191.M295

Full Title: INTERCONNECTED ELECTRIC POWER SYSTEMS AND THEIR OPERATION

Facilities: None.

No. of Russian References: 156.

Available: Library of Congress

MARKOVICH, I. I.

Electrical Engineering Abst.  
Vol. 57 No. 675  
Mar. 1954  
Electrical Engineering

621.315.09 : 621.3.016.35

16. Experimental investigation of the operation of a long-distance transmission line near the stability limit. I. M. MARKOVICH AND S. A. SVALOV. *Elektrichestvo*, 1953, No. 6, 3-9. In Russian.

It was found that a long transmission line fed from powerful hydro-generators may operate without breakdown when the transmitted power is increased to near the limits of the natural stability of the line. Any disturbance of the stability takes the form of cumulative hunting of the alternators. For a given system and regulator setting, the limit corresponding to constancy of the direct component of the e.m.f. across the transient reactance cannot be reached. Comparison of experimental and theoretical results proves that the calculated value of the limit of transmitted power is accurate enough if calculations take into account the action of the voltage regulator. Accurate calculations of the static stability must also consider saturation effects. The use of voltage regulators improves the stability to an appreciable degree, chiefly because it maintains the terminal voltage of the alternators practically constant against the effect of adverse operating conditions (increase of transmitted power or reduction of the voltage at the far end). The setting of electronic voltage regulators should, as far as possible, be such as to avoid the possibility of a power outage or a voltage collapse occurring.

B. P. KRAUS



MARKOVICH, I.M., doktor tekhnicheskikh nauk; MEL'NIKOV, N.A.

"Calculating the operating processes of the networks of electric power systems." N.A. Mel'nikov. Reviewed by I.M. Markovich. Elek. sta. 24 no. 5: 63-64 My '53. (MLBA 6:7)

(Electric networks) (Mel'nikov, N.A.)

MARKOVICH, I.M., doktor tekhnicheskikh nauk.

Authors answer. Elek.sta. 25 no.12:58 D '54. (MLRA 7:12)  
(Electric power production)

MARKOVICH, I. M.

AID P - 2001

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 5/31

Authors : ~~Markovich, I. M.~~, Doc. of Tech. Sci., and Sovalov,  
S. A., ~~Kand. of Tech. Sci.~~, Moscow

Title : Experimental study of resynchronizing generators

Periodical : Elektrichestvo, 4, 24-29, Ap 1955

Abstract : The authors experimented first with a 50,000-kw 10.5-kv, 675-amp turbogenerator. A 3-phase, 0.55-sec. short-circuit at the high voltage buses created a 9-cycle 4-sec asynchronous oscillation in the generator after which it returned to synchronic speed. The next two series of tests were made with a 55,000-kw, 13.8-kv, 1170-a water-wheel generator with no damper windings, the first with the use of rapid excitation regulation, the second with a constant excitation voltage. In the first case, a series of 138 cycles of asynchronous oscillations lasted for

Elektrichestro, 4, 24-29, Ap 1955

AID P - 20C1

Card 2/2 Pub. 27 - 5/31

15 sec with a maximum slip of 28.6%; in the second case resynchronization occurred after 171 cycles, after which the water-wheel again went out of synchronism for 8 cycles. Twenty-two seconds after the short occurred, synchronism was reestablished. Maximum slip was 32.5%. The authors conclude that the deciding role in the process of resynchronization was played by the inertia of the regulating system of the turbine. Eight diagrams and oscillograms, 4 Russian references (1948-1953).

Institution: None

Submitted : No date

MARKOVICH, Isaak Moiseyevich; MEL'NIKOV, N.A., redaktor; MEDVEDEV, L.Ya.,  
tekhnicheskly redaktor

[Power systems] Razhny energeticheskikh sistem. Izd. 2-oe, perer.  
i dop. Moskva, Gos. energ.izd-vo, 1957. 270 p. (MIRA 10:7)  
(Electric power plants) (Electric power distribution)

MARKOVICH, I. M., BOGDANOVA, N. B., GERTSYK, A. K., YEMEL'YANOV, N. P. KOLPAKOVA, A. I. POPKOV, V. I., SOVALOV, S. A., AND SLAVIN, G. A.

Results of Some Researches, Carried out in the USSR on 600 kV long-distance Power Transmissions.

paper submitted for presentation at the Intl. Conf. on Large Electric Systems (CIGRE) 17th Biennial Session, Paris, France, 5-14 June 1958.

Electra, No. 30, Nov 57, periodical news letter issued by the CIGRE, Paris France.

~~MARKOVICH~~  
BRUK, Isaak Semenovich; ZUBKOV, Pavel Izrailevich; KRYUKOV, Adrian  
Aleksandrovich; LIBKIND, Mark Samuilovich; MARKOVICH, Isaak  
Moiseyevich; SOVALOV, Solomon, Abramovich; GRIGOR'YEV, Ye.N.,  
red.izd-va; NOVIKOVA, S., tekhn.red.

MARKOVICH

1. 317.

[Long distance transmission of alternating current] Dal'nie  
peredachi peremennogo toka. Moskva, Izd-vo Akad. nauk SSSR,  
1958. 258 p. (MIRA 11:5)

1. Chlen-korrespondent AN SSSR (for Bruk)  
(Electric power distribution)

*MARKOVICH, I.M.*  
VENIKOV, V.A., doktor tekhn.nauk, prof.; MARKOVICH, I.M., doktor  
tekhn.nauk.

Trip to England of the representatives of the Soviet committee  
of SIGRE. Elektrichestvo no.1:93-94 Ja '58. (MIRA 11:2)  
(Great Britain--Electric engineering--Congresses)



*MARKOVICH, I. M.*

AUTHOR: Markovich, I. M. (Moscow).

1957-1958

TITLE: On the possibility of automatic redistribution of active load between power stations which are not supplied with telecommunication channels. (O vozmozhnosti avtomaticheskogo raspredeleniya aktivnykh moshchnostey mezhdru elektrostantsiyami bez telekanalov svyazi).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, No.2, pp. 128-129 (USSR).

ABSTRACT: It is shown that the change of the total load of a power system can be expressed by a relation containing a term which depends on the deviation of the electrical time from the accurate time. The advisability of utilizing the deviation of the electrical time (which can easily be measured without telecommunication channels) for automatic load distribution was first mentioned to the author by A. G. Moskalev. One of the possible block diagrams for astatic frequency regulation with automatic load

Card 1/1 distribution is shown on p.129.  
There is one figure.

SUBMITTED: May 20, 1957.

AVAILABLE: Library of Congress.

105-50-4-20/37

AUTHORS: Markovich, I. M., Doctor of Technical Sciences  
Libkind, M. S., Candidate of Technical Sciences

TITLE: On Dynamic Models of **Power** Systems (O dinamicheskikh modelyakh energosistem)

PERIODICAL: Elektrichestvo, 1958, Nr 4, pp. 73 - 74 (USSR)

ABSTRACT: This is a discussion on the article by I. S. Bruk in Elektrichestvo, 1958, Nr 2. Pointing at the book by V. A. Venikov and A. V. Ivanov-Smolenskiy "Physical Modelling of Electric Systems", 1956, GEI publication, and referring to some paragraphs from this book the author is of opinion that dynamic models can be used in the investigation of various problems as well as for teaching aids. It is useless from the viewpoint of technical possibilities as well as of expenses to compare the dynamic models as means for the quantitative investigation with the electrical network analyzer and with numerical machines before the problem of the accuracy in the carrying out of various calculations by means of the dynamic models will be completely explained. As regards the universal numeric-

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105-50-4-20/57

On Dynamic Models of **Power** Systems

al machines their use for the calculation of the operation of energy systems will be extended, other devices being replaced to a certain extent.

ASSOCIATION: Energeticheskiy institut im. Krzhizhanovskogo Akademii nauk SSSR  
(Institute for Power Engineering imeni Krzhizhanovskiy AS USSR)

AVAILABLE: Library of Congress

1. Electrical systems-Modelling

Card 2/2

KRZHIZHANOVSKIY, G.M.; VNYTS, V.I.; BAUM, V.A.; GORUSHKIN, V.I.; NEKRASOV,  
A.M.; MARKOVICH, I.M.; TOLSTOV, Yu.G.

V.I. Popkov. Elektrichestvo no.4:94 Ap '58.

(MIRA 11'5)

1. Chlen-korrespondent Akademii nauk SSSR.  
(Popkov, Valerii Ivanovich, 1908-)

PLATE I BOOK EXPLOSION 807/3407

Academy of Sciences USSR. Biographical dictionary. Vol. 1. O.K. Brullovskiy  
 Publishing house: Moscow, 1979. 891 p. Price 45g. 2,500 copies printed.

Vol. of Publishing House: S.D. Akhmedov, P.V. Dobry, P.I. Dobry, and  
 S.M. Kozlov. Vol. 1. S.D. Akhmedov. Editorial Board: L.V. Piskunov,  
 A.M. Kozlov, V.I. Piskunov (Chairman), V.I. Piskunov (Secretary),  
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 S.I. Piskunov, S.I. Piskunov, S.I. Piskunov, S.I. Piskunov, S.I. Piskunov,  
 S.I. Piskunov, S.I. Piskunov, S.I. Piskunov, S.I. Piskunov, S.I. Piskunov,  
 and I.M. Akhmedov.

NOTE: This collection of articles is intended as a tribute to the memory  
 of Academician O.K. Brullovskiy.

CONTENTS: The collection contains sixty articles by former students and  
 colleagues of the deceased Academician. The articles deal with problems  
 of a wide range of subjects in the field of power engineering: problems  
 of the regional development of electrical and thermal power engineering,  
 power engineering technology and the physics of combustion. In particular  
 are mentioned. References are given after most articles.

1. Brullovskiy, S.I. Some Special Features of Power Development in  
 Power Engineering in the U.S.S.R. 167

2. Brullovskiy, A.O. Methods of Determining Technical-Economic Indices of  
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9. Brullovskiy, V.M. On the Insufficiency of the Method of the Equivalent  
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12. Brullovskiy, V.I. M.S. Akhmedov. Commission for the Long-Distance Trans-  
 mission of Electrical Energy at the Power Engineering Institute Local  
 O.K. Brullovskiy 268

13. Brullovskiy, S.I. Coefficients of Hydraulic Resistance to the Movement  
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14. Brullovskiy, A.I. Calculation of Turbulent Friction in the Flow of a  
 Compressed Gas Around a Flat Plate 267

15. Brullovskiy, M.I. Investigation of the Structure of an Anisotropy-  
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16. Brullovskiy, G.P. Conditions for Representing Heating Systems With Flame  
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17. Brullovskiy, Z.L. M.A. Syrtsov. Heat Trans-  
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18. Brullovskiy, G.I. Yu.A. Kozlovskiy. Calculation of Resistance and of  
 Heat Exchange in a Stream of Uncompressed Liquid in the Presence  
 of a Positive Pressure Gradient 269

8(2),28(1)

AUTHOR: Markovich, I. M., Doctor of  
Technical Sciences

SOV/105-50-1-1-1/59

TITLE: Basic Operation Principles for Automatic Control of Frequency and Real Power Flow in Power System Combinations and in the **Unified** Power System (Osnovnyye rezhimnyye printsipy avtomaticheskogo regulirovaniya chastoty i aktivnoy moshchnosti v ob'yedineniyakh energosistem i YeES)

PERIODICAL: Elektrichestvo, 1959, Nr 1, pp 18-24 (USSR)

ABSTRACT: The control of **unified power system (UPS)** operating conditions is one of the most complicated problems. The valuation of a number of main problems in the field of switching principles for the control of switching methods in power system combinations and in the standard power system **UPS** is given here. 1) The principal functions of automatic control of switching methods of complicated combinations of power systems and the **UPS** are pointed out: a) automatic stabilization of frequency in the whole combination on a level sufficient for all consumers, both in the normal and disturbed (damage) conditions; b) automatic stabilization of intermediate-system capacities on an economically favorable level; c) the

Card 1/5

Basic Operation Principles for Automatic Control of SOV/105-59-1-5/29  
Frequency and Real Power Flow in Power System Combinations and in the  
**Unified** Power System

capacities of non-regulating stations and the average capacities of regulating stations must also change automatically and sufficiently slowly (monotonously) in each of the power systems belonging to the **UPS**. - 2) It is shown that the accidental frequency fluctuations brought about by accidental changes in the total load of the **UPS** are limited by the primary regulators. The automatic stabilization of the medium frequency demands the application of special automatic frequency, or frequency and capacity regulators (secondary control). Also the primary regulators do not suffice in a further case, namely to stabilize the frequency in sudden power losses by disturbances (damages) in the power station. 3) Secondary control. In a combination of power systems with weak junctions, the above functions of secondary control are added by another important function: the secondary regulators must also control the intermediate-system flows of power through relatively weak junctions. Control criteria at disturbances in any power system and an automatic utilization of all power reserves in power stations of the system

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Basic Operation Principles for Automatic Control of      SCV/105-50-1-5/19  
Frequency and Real Power Flow in Power System Combinations and in the  
**Unified** Power System

(controlled by the secondary regulation) are pointed out. Also the criteria of secondary control in some stations are described. Selection of one or another criterion depends on economical deliberations, and is connected with power and regulation possibilities of individual power stations.

4) Economic control. In many cases, especially in the unified power system (UPS), it is convenient to make the economic distribution of load into a function of a separate kind of regulation - the economic or "tertiary" one. The speed of this regulation should correspond to the speed at which the total load changes in a power system combination or a single power system. It should, however, be smaller than the speed of the effect of secondary regulation. The tertiary regulation must change the load - without changing the frequency in the UPS - in such manner that, on one hand, the minimum cost of the energy supplied to consumers is guaranteed, and on the other hand sufficient regulation ranges are maintained for the loads in the frequency-regulating stations and for the intermediate-system flows. The equipment performing a...

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Basic Operation Principles for Automatic Control of SOV/105-59-1-5/29  
Frequency and Real Power Flow in Power System Combinations and in the  
**Unified** Power System

control was first developed in 1946-47 by the Energeticheskii institut AN SSSR (Institute of Power Engineering, AS USSR) and designated by the abbreviation RAN. The further development of RAN led to the development of various automatic and semi-automatic devices for tertiary control. From the point of view of reducing capital investments for control devices, it is convenient to divide tertiary control into two types: a) internal-system control for large power systems, and b) intermediate-system control. 5) The economic control of the discharge from water power stations is examined. Shortcomings in the instructions for selecting optimum conditions for jointly-working water and thermal power stations published in 1956 are pointed out. An exact argumentation for economic distribution of load in the power system is put forward in the form of a complete system of equations, thus closing the gap in the mentioned instructions. The total specific saving of fuel at an increase of the hourly water consumption in the hydroelectric power station  $\alpha$  in the  $i$ th hour  $\frac{\partial B}{\partial q_{ui}}$  is introduced instead

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Basic Operation Principles for Automatic Control of SOV/105-59-1-5/29  
Frequency and Real Power Flow in Power System Combinations and in the  
**Unified** Power System

of the hourly saving. The conditions are formulated for the  
maximum economy of the conditions during a continuous period  
of time. There are 4 Soviet references.

SUBMITTED: August 16, 1958

Card 5/5

MARKOVICH, I.M.

Methods for making an economic distribution of active capacities among  
hydroelectric power plants and thermal electric power plants. Obshch.  
energ. no.1:72-77 '59. (MIRA 13:2)  
(Electric power production)

8(5)

SOV/105-59-3-3/27

**AUTHOR:** Markovich, I. M., Doctor of Technical Sciences

**TITLE:** Basic Operational Principles for the Determination of the Magnitude and Allocation of Active Power Reserve in Power Systems (Osnovnyye rezhimnyye printsipy vybora velichiny i razmeshcheniya rezerva aktivnoy moshchnosti v energeticheskikh sistemakh)

**PERIODICAL:** Elektrichestvo, 1959, Nr 3, pp 11-17 (USSR)

**ABSTRACT:** The present paper is subjected to discussion. Two types of reserve power are distinguished in the classification of power station capacity: 1) Ready reserve power 2) Idling reserve power. It is shown that two components which compensate each other combine to form the total reserve power: 1) One component intended to compensate a sudden overshoot of power demand and 2) One component which is to compensate for unforeseeable reduction of the power output of power stations. The second component is conveniently categorized a) into reserve power which is to compensate the reduction in power output due to maintenance work, and b) into reserve power which is to compensate sudden unforeseeable reductions in power output. Summarizingly formula (1) is written down, specifying the total reserve power:  $R_G = (R_1 + R_{2a}) + (R_{2b} + R_{En})$ ,

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SOV/105-59-3-3/27

Basic Operational Principles for the Determination of the Magnitude and Allocation of Active Power Reserve in Power Systems

where  $R_1$  denotes the reserve for the compensation of the error in the determination of future power demand,  $R_{2a}$  the reserve for a compensation of a sudden drop in power output of power stations,  $R_{2b}$  is the reserve for the compensation of protracted stoppage of units, and  $R_{En}$  denotes the reserve for the compensation of unforeseeable power output reductions. In the second section the probability of errors in power demand forecasts is investigated. The fourth section covers the determination of the probability of a power deficit and the probability of a too small power supply is investigated. In the fifth section the principles of an economic distribution of reserves is investigated. For this purpose the problem of allocating economically a given total reserve power  $R$  to  $n$  power stations is studied. It is assumed that the rated power or the available power of each station varies continually. The solution of this problem is found by determining the minimum of the function  $Q = N + \lambda_1 W_1 + \lambda_2 W_2$ . formula (12). where  $N = N_1 + N_2 + \dots$  is the total fuel consumption per hour in the power system;  $W_1 = P_1 + P_2 + \dots + P_n - \bar{W} - P_B = 0$

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SOV/105-59-3-3/27

Basic Operational Principles for the Determination of the Magnitude and Allocation of Active Power Reserve in Power Systems

formula (13), where  $\Sigma$  denotes the power losses,  $P_B$  the total load of the power system,  $P$  the load of one power station, and  $\lambda_1$  and  $\lambda_2$  indeterminate factors.  $W_2 = P_{nom 1} + P_{nom 2} + \dots + P_{nom n} - (P_1 + P_2 + \dots + P_n) - R = 0$  where  $P_{nom}$  denotes the nominal operating power, and  $R$  the given total reserve. The question, whether it is expedient to stop surplus power units and to start them again when the demand increases, cannot be solved without taking into account the fuel consumption during starting and stoppage operations and during idling operation - There are 3 figures.

ASSOCIATION: Energeticheskiy institut im. Krzhizhanovskogo Akademii nauk SSSR (Institute of Power Engineering Emel Krzhizhanovskiy of the Academy of Sciences, USSR)

SUBMITTED: July 16, 1958

Card 3/3

MARKOVICH, I.M., doktor tekhn.nauk; SOVALOV, S.A., kand.tekhn.nauk;  
KRYUKOV, A.A., inzh.

Some special features of long distance a. c. transmissions.  
Elektrichestvo no.2:35-40 P '60. (MIRA 13:5)

1. Energeticheskiy institut imeni Krzhizhanovskogo AN SSSR.  
(Electric power distribution—~~Alternating~~ current)

AUTHORS: Veyts, V. I., Popkov, V. I. S/105/60/000/04/022/024  
 Markovich, I. M., Zakharin, A. G. B007/B008  
 Tolstov, Yu. G., Nikitin, B. I., Karaulov, N. A., Teleshev, B. A.,  
 Gurevich, B. A., Lebedev, M. M., et al.

TITLE: On the 70th Birthday of N. N. Krachkovskiy

PERIODICAL: Elektrichestvo, 1960, Nr 4, p 93 (USSR)

TEXT: Nikolay Nikolayevich Krachkovskiy is one of the oldest Soviet power engineers. He started his activities in 1916 after finishing his studies at the elektromekhanicheskoye otdeleniye Petrogradskogo politekhnicheskogo instituta (Department of Electromechanics of the Petrograd Polytechnic Institute). From 1922 he worked at the planning and construction of electric networks in the Volkhovstroy, Dneprostroy, and Sredvolgostroy. He worked as an engineer in a leading position in the eastern regions of the USSR from 1942 to 1944. From 1944 to 1946 he was Director of the sektor sistem Leningradskogo otdeleniya Gidroenergoprojekta (Sector of Networks of the Leningrad Branch of the All-Union Trust for the Design and Planning of Hydroelectric Power Plants and Hydroelectric Developments). His scientific and teaching activity began in 1930 at the Politekhnikum Putey soobshcheniya (Polytechnic Institute of Railroads), at the Leningradskiy politekhnicheskii institut (Leningrad Polytechnic

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On the 70th Birthday of N. N. Krachkovskiy

S/105/60/000/04/022/024  
B007/B008

Institute), and the Akademiya nauk SSSR (Academy of Sciences of the USSR). Since 1950 he was in a leading position at a Planning Institute, directing simultaneously research work at the Energeticheskiy institut AN SSSR (Institute of Power Engineering of the AS USSR). Since 1954 he has devoted himself entirely to scientific work. He graduated as a Candidate in 1948. In 1953 he was approved as a Senior Scientific Collaborator of the Institute of Power Engineering of the AS USSR in the field of "Electric Networks". He published over 50 papers in the periodicals "Elektrichestvo", "Elektricheskiye stantsii", "Izvestiya AN SSSR", et al., and made a number of inventions. There is 1 figure.

Card 2/2

MARKOVICH, I.M., doktor tekhn.nauk; TAFT, V.A., doktor tekhn.nauk;  
SOVALOV, S.A., kand.tekhn.nauk; VENIKOV, V.A., doktor tekhn.  
nauk; TSUKERNIK, L.V., kand.tekhn.nauk

Present-day use of computers in designing and operating electric  
power systems. Elektrichestvo no. 11:1-8 N '60. (MIRA 13:12)

1. Energeticheskiy institut AN SSSR (for Markovich, Taft & Sovalov).
2. Moskovskiy energeticheskiy institut (for Venikov). 3. Institut  
elektrotehniki AN USSR (for Tsukernik).  
(Electronic calculating machines)  
(Electric power)

MARKOVICH, I.M., doktor tekhn.nauk; TAFT, V.A., doktor tekhn.nauk;  
SOVALOV, S.A., kand.tekhn.nauk; VENIKOV, V.A., doktor tekhn.nauk;  
TSUKERNIK, L.V., kand.tekhn.nauk

Problems on the use of computers in designing and operating  
electric power systems. Elektrichestvo no. 12:9-15 D '60.  
(MIRA 14:1)

1. Energeticheskiy institut AN SSSR (for Sovalov).
  2. Moskovskiy energeticheskiy institut (for Venikov).
  3. Institut elektrotekhniki AN USSR (for TSukernik).
- (Electronic calculating machines)  
(Electric power plants)

GRUDINSKIY, P.G., prof.; MARKOVICH, I.M., doktor tekhn.nauk

Plan of the State Commission for the Electrification of Russia  
and development of electric power systems in the Soviet Union.  
Elek. sta. 31 no.12:12-16 D '60. (MIRA 14:5)  
(Electric power)

PO. V., V.I.; ZAKHAROV, A.A.; KARPOVICH, I.M.; TOLSTOV, Yu.G.;  
GURVICH, S.A.; MOCHALOV, N.N.; LEBEDEV, M.M.;  
MIRZAYEV, V.I.; DENISOV, V.I.; MOSKVITIN, A.I.;  
MYEROVICH, S.A.; REZHEN, P.A.; STEKOL'NIKOV, I.S.;  
LAPITSKEY, V.I.; KREYSER, I.N.

Veniamin Isaakovich Veits; obituary. Elektricheskiye s-ty: c-4:  
91-92 Ap '61. (14: )  
(Veits, Veniamin Isaakovich, 1905-1961)

MARKOVICH, I.M., doktor tekhn.nauk; TEYTEL'BAUM, V.N.

Method of efficient distribution of active power in a consolidated electric power system. Elektrichestvo no.1:10-11 Ja '62.  
(MIRA 14:12)

1. Energeticheskiy institut imeni Krzhizhanovskogo.  
(Interconnected electric utility systems)  
(Electric power distribution)

MARKOVICH, I.M., doktor tekhn.nauk

General formula for calculating power losses in networks  
and unit loss increments. Elektrichestvo no.4:41-45 Ap '62.  
(MIRA 15:5)

1. Energeticheskii institut imeni Krzhizhanovskogo.  
(Electric power distribution)

GORUSHKIN, V.I.; KOVAL'KOV, G.A.; KOZLOVSKIY, G.F.; LUTIDZE, Sh.I.;  
MARKOVICH, I.M.; MEYEROVICH, E.A.; MIKHNEVICH, G.I.;  
POPKOV, V.I.; STEKOL'NIKOV, I.S.; TAFT, V.A.; TOLSTOV, Yu.G.

Sixtieth anniversary of the birth of A.I. Moskvitin. Elektrichestvo  
no.4:94 Ap '62. (MIRA 15:5)  
(Moskvitin, Anatolii Ivanovich, 1902-)



MARKOVICH, I. M. (Moskva); BRAILOV, V. P. (Moskva); DENISOV, V. I.  
(Moskva)

Use of mathematical programming methods in the solution of  
a problem concerning the future development of the consoli-  
dated electric utility system. Izv. AN SSSR. Otd. tekhn. nauk.  
Energ. i avtom. no.6:11-16 N-D '62. (MIRA 16:1)

(Electric power distribution)

MARKOVICH, I. M.; SOVALOV, S. A.

Principal requirements of automatic frequency and active power control in electric power distribution systems and prospects of satisfying these conditions with present control systems. Elektroenergetika no.6:22-41 '62. (MIRA 16:4)

(Electric power distribution)  
(Electric power plants)

MARKOVICH, I.M., doktor tekhn.nauk

Criteria for the expediency of stopping or starting generator  
units in an electric power system. Elektrichestvo no.7:21-23  
Jl '62. (MIRA 15:7)

1. Energeticheskiy institut Gosudarstvennogo nauchno-  
ekonomicheskogo soveta Soveta Ministrov SSSR.  
(Interconnected electric utility systems)  
(Electric power distribution)

MARKOVICH, Isaak Moiseyevich; MEL'NIKOV, N.A., red.; BORUNOV, N.I.,  
tekh. red.

[Modes of operation of power systems] Rezhimy energetiches-  
skikh sistem. Izd.3., perer. i dop. Moskva, Gosenergoizdat,  
1963. 359 p. (MIRA 16:8)

(Electric power distribution)  
(Interconnected electric utility systems)

MARKOVICH, I.M. (Moskva); VOLKOV, G.A. (Moskva)

Basic principles of the determination of optimum power  
reserve in an electric power system. Izv. AN SSSR. Otd. tekhn.  
nauk. Energ. i transp. no.3:251-256 My-Je '63.  
(MIRA 1:8)

LIBKIND, Mark Samuilovich; MARKOVICH, Isaak Moiseyevich;  
KAMINSKIY, Ye.A., red.

[Electricity on the move] Elektrichestvo v puti. Mo-  
skva, Izd-vo "Energia," 1964. 120 p. (MIRA 17:6)

VENIKOV, V.A., doktor tekhn. nauk, prof., Laureat Leninskoy premii;  
GORSKIY, Yu.M., kand. tekhn. nauk, nauchnyy sotrudnik;  
SOLDATKINA, L.A., kand. tekhn. nauk, dotsent; MARKOVICH, I.M.,  
doktor tekhn. nauk; KHOLMSKIY, V.G., prof., doktor tekhn. nauk;  
TSUKERNIK, L.V., doktor tekhn. nauk;

On N.A. Kartvelishvili's comments "Errors in the determination  
of the probability of stability disturbance for some dynamic  
systems." Izv. AN SSSR. Mekh. i mashinostr. no.4:195-200  
Jl-Ag '64

1. Zaveduyushchiy kafedroy "Elektricheskiye sistemy" Moskov-  
skogo energeticheskogo instituta (for Venikov).

TOLSTOV, Yu.G., doktor tekhn. nauk, prof., otv. red.; LEVITOV, V.I.,  
kand. tekhn. nauk, red.; LARIONOVICH, I.M., doktor tekhn.  
nauk, prof., red.; MIKHNEVICH, G.V., doktor tekhn. nauk,  
red.; MESHCHERYAKOV, P., kand. tekhn. nauk, red.;  
STEKOL'NIKOV, I.S., doktor tekhn.nauk, prof., red.

[Operating modes of electrical systems and regulation of  
synchronous machines] Rezhimy raboty elektrosistem i regu-  
lirovanie sinkhronnykh mashin. Moskva, Nauka, 1964. 150 p.  
(MIRA 17:9)

1. Moscow. Energeticheskiy institut.



UL'YANOV, Sergey Aleksandrovich; MARKOVICH, I.M., doktor tekhn.  
nauk, prof., retsenzent; KRYUCHKOV, I.P., kand. tekhn.  
nauk, red.

[Electromagnetic transients in electrical systems] Elektr-  
magnitnye perekhodnye protsessy v elektricheskikh sistemakh.  
Moskva, Energiia, 1964. 703 p. (MIRA 18:12)

AYVAZ'YAN, V.G.; ALEKSANDROV, B.K.; ANDRIANOV, V.N.; BESCHINSKIY, A.A.;  
BUDZKO, I.A.; ZHIMERIN, D.G.; KRASNOV, V.S.; KRUSHILIN, G.N.;  
KULEBAKIN, V.S.; LISTOV, P.N.; MARKVARDT, K.G.; MARKOVICH, I.M.;  
POPKOV, V.I.; STYRIKOVICH, M.A.

Andrei Georgievich Zakharin, 1904- ; on his 60th birthday.  
Elektrichestvo no.1:91 Ja '65. (MIRA 18:7)

ANDRIANOV, V.N.; BUDZKO, I.A.; VENIKOV, V.A.; DEMIN, A.V.; GORODSKIY, D.A.;  
GRUDINSKIY, P.G.; ZAKHARIN, A.G.; KRASNOV, V.S.; LEVIN, M.S.; LISTOV,  
P.N.; MARKOVICH, I.M.; MEL'NIKOV, N.A.; NAZAROV, G.I.; RAZEVIK, D.V.;  
SMIRNOV, B.V.; STEPANOV, V.N.; SYROMYATNIKOV, I.A.; FEDOSEYEV, A.M.;  
YAKOBS, A.I.

Doctor of technical sciences, Professor Lev Efimovich Ebin, 1905-; on  
his 60th birthday. Elektrichestvo, no.6:91 Je '65.

(MIRA 18:7)

ALAD'YEV, I.T.; ALEKSANDROV, B.K.; BAUM, V.A.; GOLOVINA, Ye.S.;  
GOL'DENBERG, S.A.; ZHIMEFIN, D.G.; ZAKHARIN, A.G.; IYEVLEN, V.N.;  
KNORZE, V.G.; KUZLOV, G.I.; LEONT'YEVA, Z.I.; MARKUSICH, I.M.;  
MEYEROVICH, E.A.; MIKHNEVICH, G.V.; POBKOV, T.I.; POPOV, M.A.;  
PREDVODITELEV, A.S.; PYATNITSKIY, L.N.; STYRIKOVICH, M.A.;  
TOLSTOV, Yu.G.; TSUKHANOVA, G.A.; CHUKHANKIN, Z.F.; SHAYKULIN, A.Ye.

Lev Nikolaevich Khitrin, 1907-1965; obituary. Izv. AN SSSR. energ.  
i transp. no.2:159-160 Mr-Apr '65. (MIRA 18:7)

L. 11548-66 EWT(d)/EWP(k)/EWP(1) JT

ACC NR: AP6005028

SOURCE CODE: UR/0105/65/000/001/0091/0091

AUTHOR: Ayvaz'yan, V. G.; Aleksandrov, B. K.; Andrianov, V. N.; Beschinskiy, A. A.; Budzko, I. A.; Zhimerin, D. G.; Krasnov, V. S.; Kruzhilin, G. N.; Kulebakin, V. S.; Listov, P. N.; Markvardt, K. G.; Markovich, I. M.; Popkov, V. I.; Styrikovich, M. A.

ORG: none

TITLE: Professor Andrey Georgiyevich Zakharin

SOURCE: Elektrichestvo, no. 1, 1965, 91

TOPIC TAGS: electric power engineering, electric engineering personnel

ABSTRACT: A short biography of subject on the occasion of his 60th birthday in November 64. A close disciple of Krzhizhanovskiy, he now heads sector of general methodological problems and forecasting at ENIN (Institute of Power Engineering imeni Krzhizhanovskiy), and power engineering section within its scientific council. In 1927-1932, worked in designing and construction of power stations and industrial power installations in the Trans-Caucasus. In 1932, having graduated as electrical engineer from Tbilisi Polytechnical Institute, he switched to scientific work at All-Union Institute of Farm Electrification, and at ENIN since 1944. Became candidate of technical sciences in 1937; doctor, in 1948. Subject is credited with working out the methods for designing efficient and economical regional and local power systems, utilizing local power resources and coordinating them with the power grids. He participated in studies on electrification through 1980, and on

UDC: 621.31:(0,75.5)

Cord 1/2

I. 11548-66

ACC NR: AP6005028

2  
the application of mathematical methods to solution of problems concerning fuel-power balance. In recent years, he has been concerned with linear programming, and long-term prediction with computer techniques. He authored about 80 scientific works, including monographs, textbooks and handbooks, and has been editing all ENIM publications. Is active in CEMA commissions and GOSPLAN USSR, devoting special attention to coordination of scientific research in power engineering. Has been awarded the Order of the Badge of Merit and other decorations. Orig. art. has: 1 figure.

[JPRS] 14

SUB CODE: 09 / SUBM DATE: none

HW  
Card 2/2

L 24077-66 EWT(1)/EMP(m)/EWT(m)/EWA(d)/T/EWA(h)/EWA(1) JKT/WW/JW/JWD/WE/JT  
ACC NR: AF0014966 SOURCE CODE: UR/0281/65/000/002/0158/0159

AUTHOR: Alad'yev, I. T.; Aleksandrov, B. K.; Baun, V. A.; Golovina, Ye. S.;  
Gol'denberg, S. A.; Zhimerin, D. G.; Zakharin, A. G.; Iyevlev, V. N.; Knorre, V. G.;  
Rozlov, G. I.; Loont'yeva, Z. I.; Markovich, I. N.; Meyerovich, E. A.; Mikhnovich, G. V.;  
Popkov, V. I.; Popov, V. A.; Predvoditelev, A. S.; Pyatnitskiy, L. N.; Styrikovich,  
H. A.; Tolstoy, Yu. G.; Tsukhanova, O. A.; Chukhanov, Z. F.; Sheyndlin, A. Ye.

ORG: none

TITLE: Lev Nikolayevich Khitrin

SOURCE: M. SSSR. Izvestiya. Energetika i transport, no. 2, 1965, 158-159

TOPIC TAGS: academic personnel, physics personnel, combustion, carbon, high temperature research, plasma beam, fuel

ABSTRACT: Professor L. N. Khitrin Corresponding Member, Academy of Sciences USSR, State Price Laureate, and Doctor of Engineering Sciences, died after a short but severe illness at the age of 58. He was well known here and abroad as an outstanding scientist and specialist in the field of combustion theory and the development of methods for speeding up burning of fuel. He began his scientific work at the All Union Heat Engineering Institute after graduating from the physics department of Moscow University in 1930. His early work was on the propagation of flames in gases, and on heterogenous combustion. In 1948 he defended his Doctor's Dissertation on the theory of combustion of car-

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UDC: 621.076.92

L 24077-66

ACC NR: AP6014966

bon. His monograph "Combustion of Carbon" was awarded the State Prize in 1950. In 1951 he became the permanent director of the laboratory for the intensification of combustion processes of the G. M. Krzhizhanovskiy Power Institute. He was elected a corresponding member of the Academy of Sciences USSR in 1953. He headed the All Union Advisory Board on combustion, represented Soviet science at International Symposia, and was a member of the International Institute of combustion. For a number of years, he directed the Moscow general seminar on combustion, and took an active part in the work of the Scientific Council of the Academy of Sciences USSR, on high temperature heat physics, and of the scientific council on the comprehensive utilization of fuel. He devoted a large amount of attention to teaching work. He directed the Combustion Division of the Physics Department of Moscow State University. His monograph "Physics of Combustion and Explosion" (1957) is a basic text for students in this field. Three Doctor's Dissertations and fifteen Candidate Dissertations were defended under his direction. In the last years of his life he directed work on methods for comprehensive utilization of fuel at power stations so as to obtain valuable products from the mineral part of the fuel, as well as work on the physical chemical processes in a plasma stream, and the mechanism of interaction between carbon and gases. He was the author of more than 60 scientific works, for which he was awarded the Order of the Red Banner of Labor and medals. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 21, 20 / SUBM DATE: none

Cord 2/2 *sla*



L 22592-66

ACC NR: AP6013001

SOURCE CODE: UR/0105/65/000/006/0091/0091

AUTHOR: Andrianov, V. N.; Budzko, I. A.; Venikov, V. A.; Demin, A. V.; Gorodskiy, D. A.; Grudinskiy, P. G.; Zakharin, A. G.; Krasnov, V. S.; Levin, M. S.; Listov, P. N.; ~~Merkovich, I. M.~~; Mel'nikov, N. A.; Nazarov, G. I.; Razevig, D. V.; Smirnov, B. V.; Stepanov, V. N.; Syromyatnikov, I. A.; Fedoseyev, A. M.; Yakobs, A. I.

ORG: none

TITLE: Doctor of technical sciences, Professor L. Ye. Ebin (on the occasion of his 60th birthday

SOURCE: Elektrichestvo, no. 6, 1965, 91

TOPIC TAGS: scientific personnel, electric network, lightning

ABSTRACT: Professor Lev Yefimovich Ebin, 60, graduated in 1928 from the Kiyevskiy elektrotekhnicheskii institut (Kiyev Electrotechnical Institute). Between 1929 and 1936, he worked in the Donenergo system and published various original papers on lightning protection and grounding devices. From 1936 EBIN works at the Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva (All-Union Scientific Research Institute for the Electrification of Agriculture) where he heads a laboratory. In 1937, he defended his candidate's dissertation and in 1951 his Ph. D. Thesis dealing with studies of the nonsymmetrical operating conditions of electrical networks and of stationary and nonstationary electro-thermal processes in the

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UDC: 621.31

L 22592-66

ACC NR: AP6013001

country. These works served for further development of the rural distribution networks. He showed considerable interest in the problem of the raising of scientific personnel. Ebin was decorated with "Znak pocheta" and various medals. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Cord 2/2. *SW*

DALIN, M.V.; MATS, A.N.; MARKOVICH, I.N.

Effect of vitamin B<sub>1</sub> (thiamine) on immunogenesis in ascariasis  
[with summary in English]. Med.paraz. i paraz.bol. 27 no.6:  
718-723 N-D '58. (MIRA 12:2)

1. Iz kafedry obshchey biologii I Moskovskogo oredena Lenina meditsinskogo instituta imeni I.M. Sechenova (zav. kafedroy - prof. F.F. Talyzin).

(VITAMIN B<sub>1</sub> effects,  
on immunogenesis in ascariasis in animals (Rus))  
(ASCARIASIS, immunology,  
eff. of vitamin B<sub>1</sub> on immunogenesis (Rus))

MIKHAYLOVA, L.A.; MARKOVICH, I.S.

1,4-Diphenyl-1,3-butadiene of high purity. Trudy IREA no.22:128-  
129 '58. (MIRA 14:6)

(Butadiene)

MIKHAYLOVA, L.A.; MARKOVICH, I.S.

High purity anthracene. Trudy IREA no.22:10-135 '58.  
(MIRA 14:6)

(Anthracene)

BRUDZ', V.G.; VAYNSHTEYN, Yu.I.; DAVYDOVSKAYA, Yu.A.; DRAPKINA, D.A.;  
MARKOVICH, I.S.

Polarographic method of analysis of solutions obtained in the  
production of glyoxal. Zav.lab. 27 no.9:1087-1090 '61.(MIRA 14:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh  
reaktivov.

(Glyoxal)

(Polarography)

DZIOMKO, V.M.; MARKOVICH, I.S.

Synthesis of 2-(2'-aminophenyl)-8-hydroxy-4,5,7-trimethylquinazoline.  
Zhur.ob.khim. 32 no.5:1622-1626 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh  
reaktivov.

(Quinazoline)

L 18300-63 EWP(q)/EWT(m)/BDS AFFTC/ASD RM/JD/JG  
 ACCESSION NR: AP3004943 S/0075/63/018/008/0937/0941

AUTHORS: Dziomko, V. M.; Zelichenok, S. L.; Markovich, I. S.

TITLE: Photometric determination of lithium with a new reagent - Quinazolinazo

SOURCE: Zhurnal analiticheskoy khimii, v. 18, no. 8, 1963, 937-941.

TOPIC TAGS: dimethylformamide, Sr, Ca, Mg, Na, Ba, Al, Fe, Rb, Cs

ABSTRACT: A photometric method was developed for lithium determination with the aid of a new reagent 2-(4",5"-dimethylimidazole-2"-azo-2'-phenyl)-8-hydroxy-4,5,7-trimethylquinazoline. The coefficient of molar extinction of the product of interaction of the reagent with lithium in dimethylformamide is 12,840. The sensitivity of the reagent is 0.1 µg of lithium in 5.75 ml of solution. Fifty times as much of Ca, Sr and Mg, 100 times as much of Na, Ba, Al and Fe, 200 times as much of Rb and Cs do not interfere with lithium determination. Curves presented include: The absorption curve of  $3.45 \times 10^{-5}$  M quinazolinazo solution depending on concentration of KOH in solution; dependence of photoabsorption of quinazolinazo and its lithium compound from KOH concentration in solution; luminous absorption curves of  $6.95 \times 10^{-5}$  M reagent solution and its lithium compound. Orig. art. has: 5 figures.

Card 1/1 ASSN: ALL-UNION SCI. RES. INST. CHEM. REAGENTS AND CHEM. SUBSTANCES OF SPECIAL PURITY.



DZIAMKO, B.M.; MARKOVICH, I.S.; PETUKHOVA, N.V.

New synthesis of derivatives of 2-(2'-aminophenyl)-  
8-hydroxyquinazoline. Zhur. ob. khim. 34 no. 7:2402-2404  
Jl '64 (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimi-  
cheskikh reaktivov i sposoby chistykh khimicheskikh veshchestv.

DZiomko, V.M.; Markovich, I.S.; Zelichenok, S.L.

Color reactions of quinazoline multidentate derivatives. Trudy  
IREA no.25:47-56 '63. (MIRA 18:6)

ALISOVA, S.P.; VUL'F, L.B.; MARKOVICH, K.M.; PETROVA, L.A.; ROGACHEVSKAYA,  
Z.M.; AGEYEV, N.V., red.; SLUZHITEL', Ye.I., tekhn.red.

[Phase diagrams of metallic systems; published in 1956] Diagrammy  
sostoianiia metallicheskih sistem; opublikovannye v 1956 godu.  
Pod red. N.V.Ageeva. Moskva. No.2. 1959. 102 p.

(MIRA 13:12)

(Alloys) (Phase rule and equilibrium)

PHASE I BOOK EXPLOITATION SOV/5612

Alisova, S. P., L. B. Vul'f, K. M. Markovich, P. K. Novik,  
L. A. Petrova, and Z. M. Rogachevskaya

Diagrammy sostoyaniya metallicheskih sistem, opublikovannyye  
v 1955 godu. vyp. 1. (Equilibrium Diagrams of Metal [Alloy]  
Systems, Published in 1955. no. 1) Moscow, 1959. 135 p.  
Errata slip inserted. 1,500 copies printed.

Ed. (Title page): N. V. Ageyev; Tech. Ed.: N. M. Soboleva.

PURPOSE : This book is intended for metallurgists, scientific  
workers, and students engaged in the study of alloys and  
their properties.

COVERAGE: Equilibrium diagrams published in Soviet and non-Soviet  
literature in 1955 are arranged in sequence according to the  
number of component elements (binary, ternary, quaternary,  
etc.); within the groups, they are arranged in Russian alpha-  
betical order according to the names of the components. The

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Equilibrium Diagrams of Metal (Cont.)

SOV/5612

descriptions treat the following: 1) the alloys used in the investigations; 2) the methods of preparing and studying the alloys; 3) a description of the diagram with its points and lines; 4) description of the phase; 5) reference source; and 6) remarks. For binary systems the equilibrium diagram from the original article is given; for ternary and more complex systems, selected sections of the diagram are presented. If not otherwise indicated, the compositions are given in weight percentages and the temperatures in Centigrade. Abbreviations for the type of lattice are as follows: granetsentrirovannaya kubicheskaya (GTsK) reshetka -- face-centered cubic (FCC) lattice; ob'yemno-tsentrirrovannaya kubicheskaya (OTsK) reshetka -- body-centered cubic (BCC) lattice; and gekssagonal'naya plotno-upakovannaya (GPU) reshetka -- hexagonal closed-packed (HCP) lattice. No personalities are mentioned. There are 114 references: 56 English, 28 German, 28 Soviet, 1 French, and 1 Italian.

Card 2/16

MARKOVICH, K.P.

AUTHORS: Ageyev, N.V., Guseva, L.N. and Markovich, K.P. (Moscow).  
 TITLE: Phase transformations in chromium rich, Cr-Mo-Fe alloys.  
 (Fazovye prevrashcheniya v splavakh khrom-molibden-zhelezo-  
 bogatykh khromom). 24-4-4/34  
 PERIODICAL: "Izv. Ak. Nauk, Otd. Tekh. Nauk" (Bulletin of the Acad. Sci.  
 Technical Sciences Section), 1957, No.4, pp.23-32 (USSR).  
 ABSTRACT: The kinetics of the disintegration of the solid solution  
 of 60:25:15 type Cr-Mo-Fe alloys were investigated for  
 chromium contents of 62 and 56 wt.% respectively. It was  
 found that at 1050°C these alloys are in the range of the  
 $\alpha$ -solid solution. At 950°C both alloys undergo decomposi-  
 tion of the solid solution accompanied by the separation  
 of the  $\alpha$ -phase of the composition Cr(MoFe); this disinte-  
 gration process brings about an increase in hardness of  
 the alloys. At the temperatures 850 and 750°C the alloy  
 containing 62% Cr is at the boundary of the  $\alpha + (\alpha + c)$   
 phases. A decrease of the Cr concentration in the alloy  
 to 56% leads to a disintegration of the solid solution at  
 these temperatures. At 850°C the alloy gets hardened less  
 than at 750°C; in the latter case a finely dispersed phase  
 separates out during ageing. The kinetics of the disinte-  
 gration of the solid solution of a 60:15:25 type alloy was  
 investigated in the temperature range 1050-750°C; at all

Card 1/3

Phase transformations in chromium rich, Cr-Mo-Fe alloys,  
(Cont.) 24-4-4/34

the temperatures separation of the  $\alpha$ -phase from the solid solution was observed. Increases in hardness were observed at holding times up to twenty hours. After a 100 hr holding, the hardness of the alloys dropped. The volume of the solution during the disintegration of the alloys of both types changes very little, namely, within the limits of  $\pm 0.002 \text{ kX}$ . Comparison of the kinetics of disintegration of the solid solutions type 60:25:15 and 60:15:25 leads to the conclusion that the speed of the diffusion process increases in the case of substitution in these alloys of iron for molybdenum. The speed of the diffusion process in the 60:15:25 type alloys and their coarse grain crystalline heterophase structure at temperatures below  $1000^\circ\text{C}$  should lead to a deterioration of their heat resistant properties. The kinetics were studied of the ageing of a 60:25:15 alloy containing 0.07% C, 2.5% Si, 1.5% Al. It was established that in addition to the  $\alpha$ -phase in the temperature range  $950 - 750^\circ\text{C}$  a finely dispersed phase rich in Mo is separated in the alloy which is probably attributable to carbides of the type  $\text{M}_{23}\text{C}_6$ ; dehardening of the alloy during ageing after holding times exceeding 50 hours is due to coagulations of this phase. Separation of the

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Phase transformations in chromium rich, Cr-Mo-Fe alloys.  
(Cont.) 24-4-4/34

carbide phase from the solid solution leads to considerable decreases of the lattice constant of the solid solution. Introduction of titanium as an alloying element into 60:25:15 type alloys leads to an increased hardness in the temperature range 1050-750°C and no dehardening was observed in the case of long duration ageing (up to 1000 hours). Investigation of the ageing of deformed alloys of the type 60:25:15 both alloyed and non-alloyed showed that introduction of titanium reduces their speed of diffusion process. The composition in wt.% of the tested specimens is given in a small table, p.23.

Card 3/3

There are 23 figures including graphs, micro-photographs and radiographs. There are 4 American, 1 English and 1 German references.

SUBMITTED: August 6, 1956.

AVAILABLE:



ALISOVA, S.P.; VUL'F, L.B.; MARKOVICH, K.P.; PETROVA, L.A.; ROGACHEVSKAYA,  
Z.M.; AGEYEV, N.V., red.; MOSSKINA, R.Ya., red.; MUKHA, S.Ya.,  
tekh. red.

[State diagrams of metal systems published in 1957] Diagrammy  
sostoianiia metallicheskih sistem, opublikovannye v 1957 godu.  
Pod red. N.V.Ageeva. Moskva. no.3. 1960. 270 p. (MIRA 14:7)

(Alloys)

ALISOVA, S.P.; KOLESNIKOVA, T.P.; MARKOVICH, K.P.; PETROVA, L.A.; ROGACHILV-  
SKAYA, Z.M.; AGEYEV, N.V., red.; MOSKVINA, R.Ya., red.; MUKHA, S.Ya.,  
tekhn. red.

[Constitutional diagrams of metal systems published in 1958] Diagrammy  
sostoianiiia metallicheskih sistem, opublikovannye v 1958 godu. Pod  
red. N.V.Ageyeva. Moskva, No.4. 1961. 402 p. (MIRA 14:12)  
(Phase rule and equilibrium)

S/538/62/000/007/015/040  
D244/D307

12.12.85  
AUTHORS: Mikheyev, V. S. and Markovich, K. P.  
TITLE: Mechanical properties of the alloys based on  $\alpha$ -solid solutions of titanium in the titanium-aluminum-zirconium system  
SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy. no. 7, Moscow, 1962. Metallokhimiya i novyye splavy, 114-119

TEXT: The authors investigated the properties of ternary alloys Ti-Al-Zr in the regions of three radial sections with the ratios of Al:Zr = 1:3, 1:1 and 3:1. It was shown that for the increasing alloying of  $\alpha$ -Ti solid solution with Al and Zr, the tensile strength and heat resistance of the alloys increased and their plasticity decreased. The highest tensile strength between 20 - 650°C was given by the alloy with the concentration of Al + Zr = 18% lying in the section 1:1. Alloying with 0.5% - 7% Zr of the six-component system Ti-Al-Cr-Fe-Si-B, containing 6% and 7.5% of Al and Cr + Fe + Si =

Card 1/2

Mechanical properties of ...

S/598/62/000/007/015/040  
D244/D307

1% to 1.2%, increased the tensile strength and heat resistance of the alloys between 20 and 650°C. The alloys containing 7.5% Al and 7% Zr had the highest tensile strength. The alloy having the highest heat resistance contained 7.5% Al and 6% Zr. There are 6 figures and 1 table.

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